Serial Number: 10/021,056 Filing Date: December 19, 2001

Title: METHOD AND APPARATUS FOR PROVIDING DEVICE-TO-DEVICE CONNECTIVITY USING SHARED INFINIBAND NIC DEVICE

Assignee: Intel Corporation

IN THE SPECIFICATION

Please amend the specification as follows:

Please amend paragraph [0006] as follows:

One method of solving this problem is to allow only one host to talk to the NIC device. However, in this solution one NIC device would then be needed for each individual host device, therefore, requiring multiple NIC devices per subnet. Another possible solution is to restrict or guarantee that [[each]] host devices device on the same InfiniBand subnet do [[does]] not send packets to each other over the network. However, in a real network and system this cannot be controlled. In still another possible solution, the network switch may be programmed to detect this situation and reflect packets from the same subnet back to that subnet if the destination address is one of a host device on that subnet. However, this requires the network switch to operate in a non-standard way. In a further way of solving this problem, a separate driver may be loaded to implement an [[and]] intra-InfiniBand local area network (LAN) network emulation. However, then one needs to guarantee that the binding order/precedence from host name to network address would insure that traffic between the two host devices always took the intra-InfiniBand LAN emulation route and not the remote shared NIC device route.

Please amend paragraph [0017] as follows:

The present invention relates to method and apparatus for providing device-to-device connectivity using a shared InfiniBand Network Interface Card (NIC) device where the NIC device provides network connectivity to multiple InfiniBand devices that are all connected to the same InfiniBand fabric through a mesh of InfiniBand switches. This allows direct memory access and channel-based input/output (I/O) between nodes on the fabric. The devices may be InfiniBand host devices and/or InfiniBand target devices device. Host devices will be used to help illustrate the present invention.

PRELIMINARY AMENDMENT

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Dkt: 884.A19US1 (INTEL)

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Please amend paragraph [0028] as follows:

Fig. 5 is a flowchart of a process for a shared NIC device according to an example embodiment of the present invention. Addresses of host devices on the same InfiniBand subnet are stored at the shared NIC device S1. This may occur during initialization of the subnet. A packet is received at the shared NIC device from a host device on the InfiniBand subnet for sending to a network S2. A destination address in the received packet is compared with the stored addresses S3. The addresses may be MAC addresses, or other types of [[type]] addresses and still be within the spirit and scope of the present invention. If there is a comparison, the packet is sent to a host device at the destination address on the subnet without sending the packet to the network S4. If there is no address match, then the packet is sent to the network for routing to the destination address S5.